Please cancel claim 21 without prejudice or disclaimer of the subject matter thereof.

Please amend claim 22 as follows:

22. (amended) A color cathode ray tube according to claim 11, wherein said speed-modulation coil surrounds said neck portion and extends in the axial direction of the tube in the region of said first division electrode and said second division electrode of said focusing electrode and said anode of said electron gun.

REMARKS

By the above amendment, the specification has been amended to correctly identify the reference listed at page 4, line 17, to indicate the proper year date of 1991 rather than 1992, and a copy of the correct reference is submitted herewith. Additionally, in light of the requirement to label Fig. 4 as "Prior Art" and to illustrate the claimed features of claims 11 and 21, submitted herewith are proposed amendments of Fig. 1A and Fig. 4, with corrected drawings thereof, so that the drawing objections should now be overcome. That is, Fig. 1A now illustrates the electron gun as previously illustrated in Fig. 1A disposed within the neck portion of the vacuum enclosure and having a deflecting device 29 surrounding the transition region between the neck portion and the funnel portion as well as a speed modulating coil in the manner as illustrated in Fig. 4 of the drawings of this application. Claim 11 has been amended to incorporate the features of dependent claim 21 therein and with claim 21 being canceled, with the features of claim 11 being clarified and claim 22 amended to depend from claim 11. It is noted that the specification has also been amended to describe Fig. 1A. Approval of the corrected drawings and the amendments of the specification are requested.

As to the rejection of claims 11-15 and 17-20 under 35 U.S.C. 102(e) as being unpatentable over Watanabe et al (U.S. Patent No. 5,814,930) in view of the admitted prior art of pages 1-5 of the instant specification and corresponding Figs. 4, 5A, 5B, 6A and 6B, such rejection is traversed insofar as it is understood and insofar as it is applicable to the claims as amended. Applicants note that there is no statement of a ground of rejection with respect to claims 16 and 22, and applicants submit that even though the Examiner states "claims 12-15, 17-19 and 21 are rejected for the same reasons as claim 11", applicants submit that such does not constitute a proper statement of a ground of rejection with respect to claim 21.

Applicants also question the rejection, as stated, of claims under "35 U.S.C. 102(e) as being unpatentable over Watanabe et al (U.S. Patent No. 5,814,930) in view of the admitted prior art...". That is, this statement of the ground of rejection represents a rejection under 35 U.S.C. 103 rather than under 35 U.S.C. 102. As to the requirements to support a rejection under 35 U.S.C. 102, In re Robertson, 49 USPQ 2d 1949 (Fed. Cir. 1999), wherein the court pointed out that anticipation under 35 U.S.C. §102 requires that each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. As noted by the court, if the prior art reference does not expressly set forth a particular element of the claim, that reference still may anticipate if the element is "inherent" in its disclosure. To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Moreover, the court pointed out that inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. Thus, it is apparent that the rejection as stated is not proper under 35 U.S.C. 102 since the Examiner recognizes that Watanabe et al does not disclose either explicitly or inherently the claimed invention.

With respect to the requirements to support a rejection under 35 U.S.C. 103, reference is made to the decision of In re Fine, 5 USPQ 2d 1596 (Fed. Cir. 1988), wherein the court pointed out that the PTO has the burden under §103 to establish a prima facie case of obviousness and can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. As noted by the court, whether a particular combination might be "obvious to try" is not a legitimate test of patentability and obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. As further noted by the court, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

Furthermore, such requirements have been clarified in the recent decision of In re Lee, 61 USPQ 2d 1430 (Fed. Cir. 2002) wherein the court in reversing an obviousness rejection indicated that deficiencies of the cited references cannot be remedied with conclusions about what is "basic knowledge" or "common knowledge". The court pointed out:

> The Examiner's conclusory statements that "the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software" and that "another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial" do not adequately address the issue of motivation to combine. This factual question of motivation is immaterial to patentability, and could not be resolved on subjected belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher."... Thus, the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the

reasoning by which the findings are deemed to support the agency's conclusion. (emphasis added)

Turning to claim 11 and the Examiner's position concerning Watanabe et al, the Examiner contends that this patent discloses a speed-modulation coil (yoke 30). Applicants submit that yoke 30 as described in col. 1, lines 44-54 of Watanabe et al, is a deflection yoke 30 which is mounted in a transitional region between the funnel portion 22 and the neck portion 23 and which deflects the three electron beams emitted from the electron gun 29 into orthogonal directions. While the Examiner terms the yoke 30 as a "speed-modulation coil", applicants submit that such is a mischaracterization of the deflection yoke 30 which is not described as a speed-modulation coil for controlling a scanning speed of the electron beams, such that the Examiner's indication that "Watanabe et al are silent as to the speed-modulation coil controlling the scanning speed of the electron beams" is again a mischaracterization. By the present amendment, claim 11 recites a deflecting device provided so as to surround a transition region between the funnel portion and the neck portion which necessarily corresponds to the yoke 30 of Watanabe et al with claim 11 additionally reciting "a speed-modulation coil for controlling a scanning speed of said electron beams" which is not disclosed by the yoke 30 of Watanabe et al in the sense of 35 U.S.C. 102 or 35 U.S.C. 103. Additionally, claim 11 has been amended to recite the feature that the speed-modulation coil is installed so as to surround the neck portion of the envelope of the color cathode ray tube where at least the first division electrode and the division electrode of the focusing electrode of the electron gun are disposed, and it is apparent that the deflection yoke 30 of Watanabe et al does not correspond to the claimed features of claim 11. Hereagain, applicants submit that Watanabe et al is deficient under 35 U.S.C. 102 and 35 U.S.C. 103. The Examiner notes that applicant admits on pages 1 and 2 of the instant specification that speed-modulation coils are generally used for control the scanning speed of electron beams and provide the advantage of improving the picture quality, with the Examiner

contending that "It would have been obvious to one skilled in the art to use the speed-modulation coil to control the scanning speed of the electron beams, to provide the advantage of improving the picture quality". Apparently, the Examiner contends that the yoke 30 of Watanabe et al could be placed in the manner defined in claim 11 and would serve as a speed-modulation coil, and this position is not understood and represents a hindsight reconstruction attempt utilizing the principle of "obvious to try" which is not the standard of 35 U.S.C. 103. See In re Fine, supra. Thus, the rejection as set forth by the Examiner is not understood and applicants submit that Watanabe et al does not disclose or teach the aforementioned claims features taken alone or in combination in the sense of 35 U.S.C. 102 and/35 U.S.C. 103, such that claim 11 and the dependent claims patentably distinguish over the prior art.

Applicants additionally note that claim 11 recites the feature that the focusing electrode includes at least a first division electrode and a second division electrode arranged with a gap in the axial direction of the tube, the second division electrode is opposed to the anode and has, in an oppose surface thereof, a single opening for passing the plurality of electron beams in common, a length of the first division electrode in the axial direction of the tube is longer than a length of the second division electrode in the axial direction of the tube, and the length of the second division electrode in the axial direction of the tube is not smaller than the diameter of the single opening in the surface of the second division electrode in a direction at right angles with the in-line direction, the speed-modulation coil being installed so as to surround the neck portion of the envelope of the color cathode ray tube where at least the first division electrode and the second division electrode of the focusing electrode of the electron gun are disposed. As noted above, Watanabe et al does not disclose the claimed features and any combination with the admitted prior art represents a hindsight reconstruction attempt in complete disregard of the teachings

of Watanabe et al. Furthermore, while the Examiner contends that in Watanabe et al, there is provided a "first and second division electrode 61, 62, respectively, and that the length of the second division electrode 62 is shorter than the length of the first division electrode (see Fig. 9), and the length of the second division electrode is greater than the diameter of the single opening in the direction at right angles to the in-line direction (see Fig. 9)" (emphasis added), applicants submit that there is no disclosure that the length of the second division electrode is greater than the diameter of the single opening in the direction at right angles to the in-line direction. Reference is made to the decision of In re Chitayat, 161 USPQ 224 (CCPA 1969), wherein the court pointed out that patent drawings are not working drawings and that in view of the absence in the specification of any written description of the quantitative value, arguments based on mere measurement of the drawings appear to be of little value. Thus, applicants submit that it is apparent that Watanabe et al provides no disclosure in the specification of the length of the first and second division electrodes nor any relation of the diameter of the opening to the length of the second division electrode. Thus, applicants submit that claim 11 further patentably distinguishes over Watanabe et al taken alone or in combination with the admitted prior art, noting that specifically Figs. 5 and 6 of the drawings of this application do not disclose or teach the claimed features. Thus, applicants submit that claim 11 and the dependent claims patentably distinguish over the cited art in the sense of 35 U.S.C. 102 and/or 35 U.S.C. 103 for these additional features and claim 11 and the dependent claims should be considered allowable thereover.

With regard to the dependent claims, as noted above, the Examiner has not set forth a specific rejection with respect to claims 16 and 22, and applicants submit that these claims, as apparently recognized by the Examiner, patentably distinguish over this cited art. Applicants note that claim 16, for example, recites the feature that the position of the individual electron beam passing openings opposing to the first

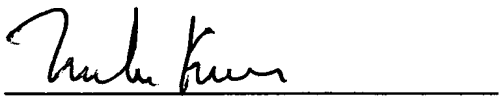
division electrode is provided from the single opening within a range of about 1.6 times of the diameter of the single opening as defined in a diameter direction at a right angle with the in-line direction and there is no disclosure or teaching of such features. Claim 12 defines the feature that the length of the second division electrode and the axial direction of the tube is not greater than 1.6 times of the diameter of the single opening in the surface of the second division electrode in a direction at right angles with the in-line direction, and again, such features are not disclosed or taught in the cited art. The other dependent claims recite dimensional or other features which are not disclosed or taught in the cited art, with claim 22, for example, reciting the feature that the speed-modulation coil extends in the axial direction of the tube in the region of the first division electrode, the second division electrode and the anode which features are not disclosed by Watanabe et al, taken alone or in combination with any of the other cited art, and claim 20 recites the feature that differences between another focusing voltage applied to the first division electrode and the focusing voltage applied to the second division electrode are about 3 kV at the greatest, and as recognized by the Examiner, Watanabe et al provides no disclosure concerning such features. The Examiner merely contends that the specification of a suitable working voltage is within the skill of the art, and applicants submit that this position by the Examiner has been rejected by the court. See In re Lee, supra. Thus, applicants submit that the dependent claims recite further features not disclosed or taught by the cited art, and all claims should be considered allowable at this time.

In view of the above amendments and remarks, applicants submit that all claims present in this application should now be in condition for allowance, and issuance of an action of a favorable nature is courteously solicited.

To the extent necessary, applicant's petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing

of this paper, including extension of time fees, to Deposit Account No. 01-2135 (501.36686CC2) and please credit any excess fees to such deposit account.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Page 4, please amend the paragraph beginning at line 15 as follows:

An electron gun having the above-mentioned electrode constitution is disclosed in Japanese Patent Laid-open Nos. 103752/1983 and 152834/~~1992~~1991.

Page 11, please amend the paragraph beginning at line 7 as follows:

The electron gun is contained in the neck portion 21 of the vacuum enclosure. Like the electron gun shown in Figs. 5A and 5B, the electron gun is constituted by a cathode 1, a first electrode 2, a second electrode 3, a third electrode 4, a fourth electrode 5, a fifth electrode (focusing electrode) 6, a sixth electrode (anode) 7, and a shield cup 8. Reference numeral 9 denotes a bead glass for firmly holding the electrodes, 10 denotes a stem, and 11 denotes contact springs, and a deflecting device surrounds a transition region between the neck portion 21 and the funnel portion 22 of the vacuum enclosure in the manner of Fig. 4.

Page 13, please amend the paragraph beginning at line 1 as follows:

The main lens of the electron gun is formed in a portion where the anode 7 and the focusing electrode 6 are opposed to each other, as shown in Fig. 1A. The focusing electrode 6 is constituted by the first division electrode 61 and the second division electrode 62 divided into two parts in the axial direction of the tube. The magnetic field generated by the electromagnetic coil 34 surrounding the neck portion 21 of the vacuum enclosure enters, the electrode through gaps among the main lens-forming portion, the first division electrode 61 and the second division electrode 62 to effect speed modulation.

Page 14, please amend the paragraph beginning at line 14 as follows:

The speed-modulation coil is installed surrounding the neck portion 21 of the vacuum enclosure extending across the first division electrode 61, second division electrode 62 and the anode 7.

IN THE CLAIMS:

Please amend claim 11 as follows:

11. (twice amended) A color cathode ray tube, comprising:

at least an envelope constituted by a panel portion, a neck portion and a funnel portion connecting the panel portion and the neck portion;

an electron gun contained in the neck portion, constituted by a cathode for forming a plurality of electron beams arranged in-line, and a focusing electrode and an anode constituting a main lens for focusing and accelerating said electron beams;

a fluorescent screen formed on an inner surface of the panel portion;

a deflecting device provided so as to surround a transition region between the funnel portion and the neck portion; and

a speed-modulation coil for controlling a scanning speed of said electron beams;

wherein said focusing electrode and said anode are arranged in order from said cathode side toward said fluorescent screen side in an axial direction of the tube;

61 4

said focusing electrode includes at least a first division electrode and a second division electrode arranged with a gap in the axial direction of the tube;

said second division electrode is opposed to said anode and has, in an opposed surface thereof, a single opening for passing said plurality of electron beams in common;

a length of said first division electrode in the axial direction of the tube is longer than a length of said second division electrode in the axial direction of the tube;

the length of said second division electrode in the axial direction of the tube is not smaller than the diameter of said single opening in the surface of said second division electrode in a direction at right angles with the in-line direction; and

said speed-modulation coil is installed so as to surround ~~a~~ the neck portion of ~~an~~ the envelope of said color cathode ray tube where at least said first division electrode and said second division electrode of said focusing electrode of said electron gun are disposed.

Please cancel claim 21 without prejudice or disclaimer of the subject matter thereof.

Please amend claim 22 as follows:

22. (amended) A color cathode ray tube according to claim ~~21~~ 11, wherein said speed-modulation coil surrounds said neck portion and extends in the axial direction of the tube in the region of said first division electrode and said second division electrode of said focusing electrode and said anode of said electron gun.